

### **REMARKS**

Favorable reconsideration is respectfully requested in view of the amendments and remarks of record and in view of the foregoing amendments and the following remarks.

The withdrawn claims have been amended to conform with the pending claims. Therefore, Applicants respectfully request rejoinder upon allowance of the pending claims. Also, claim 9 is cancelled without prejudice or disclaimer thereto.

No new matter has been added.

Further, Applicants herein provide corrections of typographical errors or informalities in the remarks section of the March 10, 2008 reply. In order to assist the Examiner, the corrections and informalities have been highlighted with strikeout and underline in conformance with USPTO rules for claim and specification amendments.

***The paragraph beginning at the end of page 6 and ending at the top of page 7 of the March 10, 2008 reply should read as follows:***

Marine macroalgae of red algae, e.g., *Gracilaria chorda*, are suitable for culturing since they have following advantages: (1) they are easily controlled and collected since they can be immobilized on carriers and cultured by virtue of their robust, less cleavable alga bodies; (2) their light-receiving efficiency does not decrease with increasing density of growing alga bodies; (3) they can grow even under weak light; (4) they are resistant to decay; (5) there is no environmental pollution ~~caused by maturation and withering~~ if they do not wither as a result of maturation; and (6) they are suitable for large-scale culture.

***The second paragraph on page 7 of the March 10, 2008 reply should read as follows:***

However, the present inventors have found that there are alga bodies suitable for long-term culture and storage having characteristics that no female gametophytes are detectable as matured bodies and only tetrasporophytes are detectable as matured bodies among alga bodies of *Gracilaria chorda* growing in natural seawater area with intermixing of fresh water. No detection of matured female gametophytes in nature means that tetraspores, a starting point of

female gametophytes, produce immaturred female gametophytes. In other words, it means that maturation is inhibited in the female gametophytes resulted from the germination of tetraspores.

***The last paragraph on page 7 to the top of page 8 of the March 10, 2008 reply should read as follows:***

In Example 2(1) of the specification (~~pp. 13-23~~)(paragraphs [0043]-[0045]), the spores used were released from matured sporophytes of the selected *Gracilaria* sp. in which no female gametophytes are detectable and only tetrasporophytes are detectable as matured bodies. On the other hand, in Comparative Examples 1 and 2 of the specification (~~pp. 24-27~~24-26), the spores used were released from tetrasporophytes of algae not selected in the above-mentioned manner, that is to say, the tetrasporophytes were ~~selectively~~randomly collected from a group of algae including matured female gametophytes and tetrasporophytes.

***Full paragaraphs 1-3 on page 8 of the March 10, 2008 reply should read as follows:***

Accordingly, the unialgal culture strain obtained in Example 2 did not mature even after 3 years or more, whereas the unialgal culture strain of Comparative Example 1 matured in 12 weeks and the unialgal culture strain of Comparative Example 2 matured in 11 weeks. As was explained above, ~~the absence~~no detection of matured female gametophytes means that tetraspores, a starting point of female gametophytes, produce immature female gametophytes. In other words, maturation is inhibited in female gametophytes produced by germination of tetraspores (See Table 4 on pg. 17).

Applicants note that the algae disclosed in Hirotaka (2000) correspond to that in Comparative Example 1. Since Hirotaka (2000) did not selectively collect algae in which no female gametophytes were detectable and only tetrasporophytes ~~are~~were detectable as matured bodies, a unialgal culture strain obtained from the algae disclosed in Hirotaka (2000) would mature in 12 weeks and therefore lack storage stability. Detection of matured female gametophytes means that tetraspores, a starting point of female gametophytes, are susceptible to producing matured female gametophytes. Thus, it is highly likely that maturation of female

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gametophytes from the germination of tetraspores will occur.

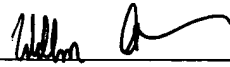
Accordingly, the claimed culture strain and alga body set forth in amended claims 1-  
[[4]]3 and 10-[[13]]12 ~~is~~are not the same as the invention disclosed in Hirota (2000).

Favorable action on the merits is respectfully requested.

If the Examiner has any comments or proposals for expediting prosecution, please contact  
the undersigned attorney at the telephone number below.

Respectfully submitted,

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